# 1000 MVA Power Project Takes Overload

Every day, somewhere in this country, an accident or natural calamity removes electric transmission lines from service. But when this happened at Niagara Falls in November 1965, the remaining parts of the network were unable to take up the extra load without damage. This failure became a chain reaction that caused a massive blackout throughout the Northeast.

That blackout, and others that have occurred nationwide since then, have underscored how important it is for transmission network components to be able to carry overloads. A second run of the Power Transmission Project's 1000 MVA Test Facility, concluded earlier this month, proved that the cables there have this ability in abundance.

The two 430-foot cables are rated for 4000 amperes (A) in a 138 kilovolt (kV), three-phase system, which corresponds to a circuit transmission capability of 1000 megavolt amperes (MVA). During the run, voltage was raised progressively until it reached 40% above rating, where it stayed for 13 hours.

After overvoltage testing, the current was raised to 6000 A and remained with this 50% overload for 30 minutes. At the 50% emergency rating, a three-phase circuit carrying 1500 MVA could supply about 20% of

the maximum power demand ever experienced by New York City.

This last test resulted in minor damage to a termination component, now being repaired in preparation for a second overvoltage test scheduled for late March. And in the future, the cables will be tested to simulate a lightning stroke, an experiment that calls for a voltage pulse of 650 kV.

For the most recent tests, the facility ran continuously for two weeks, around the clock and on weekends. Most of the time, it was operated by only two people on shift, who were responsible for both the cryogenic and electrical systems.

"This schedule required a tremendous amount of effort by everyone in the group," said Mechanical Engineer Kurt Minati. With budget cuts, the project's staff has been reduced from 50 to 20 people in the past two years. As Project Head Eric Forsyth pointed out, "The fact that we were able to run this test with so few people is itself testimony to their dedication and capability, as well as to the test facility's reliability."

What is it like to be on duty during a run? Bill Kristiansen, a technical supervisor who has been with the project for over ten years, said, "For the majority of the time, it's boring — and you want it to remain boring — you

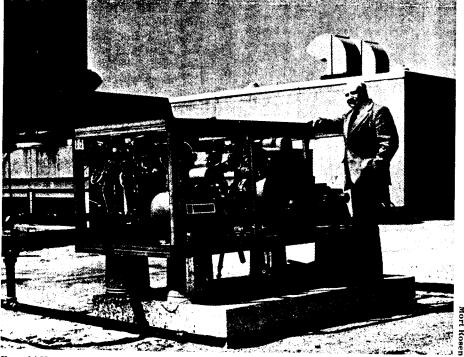


Shown in the control room at the Power Transmission Project's 1000 MVA Test Facility are (from left) Conrad Dabrowski, John Wilcenski, Bill Kristiansen and John Slavik, who were in charge of the four crews on shift during recent tests of the superconducting cables under emergency power ratings.

don't want anything to happen that could cause a shutdown. But this last run was quite uneventful. It cooled down faster than ever before, faster than we had calculated. And we had fewer problems than you would anticipate with something this new."

Also on duty during this run was technician John Slavik, a nine-year veteran of the project who called this, "the most interesting job I've had. Many things have never been done before." Because of this, said Kristiansen, "Nothing is easy. For each problem you solve, there's always another one. It's been ten years of trial and error. But when you begin to see how successful it is, it's a feeling you can't believe. It's beautiful."

— Anita Cohen



Donald Huszagh stands by the pneumatically-controlled resin spray machine he designed.

# **Getting Concrete Results**

"Cure the disease and kill the patient."

When he wrote these words in 1625, Francis Bacon could not foresee that his words might be applied to the state of our modern roadways. But if ice is the disease, de-icing salts can be considered the cure. And if those salts also penetrate and destroy road surfaces, in essence, they kill the patient.

Preventing these untimely deaths has been one aim of Jack Fontana, Larry Kukacka, Meyer Steinberg and others who have been involved in the polymer concrete program of DEE's Process Sciences Division. Polymer concrete is formed when a monomer, mixed with sand and stone, is activated and polymerized — binding with the other materials to harden into a concrete-like substance. This material dries stronger than conventional concrete, within two hours of application, and has the penetration and corro-

sion resistance of a plastic-like surface. These unique features have made polymer concrete a natural choice for repairing damage to bridge deck surfaces. Now, with the help of new equipment designed by Donald Huszagh of DEE's Energy Technology Division, polymer concrete is preventing the cure from killing the patient.

Huszagh's device is a pneumatically-controlled resin spray machine. A sand spreaderapplies an aggregate on top of the resin, and polymer concrete is formed as an overlay to concrete bridge decks. This even coating shields the deck beneath it, greatly enhancing its resistance to penetration by de-icing salts. The spray machine was developed to fulfill a contract with the Federal Highway Administration, which called for an overlay to be applied to a 450-foot bridge leading to Virginia's Dulles Airport.

(Continued on page 2)

# From Lab to Marketplace

Do you have a good idea? Have you invented a better mousetrap? Bill Marcuse would like to hear from you.

Marcuse is head of the new Office of Research and Technology Applications (ORTA), which is responsible for identifying Lab research with potential commercial application, disseminating information about new technologies and assisting in their transfer.

"This year, the Federal government will spend close to 40 billion dollars on research and development," says Marcuse. "And true or not, there is a perception that not enough of what is developed is getting out."

That's why in 1980 Congress passed the Stevenson-Wydler Technology Innovation Act, which requires all Federal agencies with research labs to set up an ORTA at each lab to promote "transfer of federally owned or originated technology to State and local governments and to the private sector." Congress is serious, according to Marcuse, who says Congressional oversight hearings are held every year to assure compliance by executive agencies.

Actually, technology transfer is not a new function for Brookhaven. The Lab has always made available to the private sector and state and local governments technical discoveries with potential application. The significant feature of the new ORTA, says Marcuse, is that it will supplement the informal, decentralized technology transfer process of years past with an effort that has greater focus and formally encompasses all of the Lab's research activities.

The Brookhaven ORTA has been active for a year. Marcuse works closely with Margaret Bogosian, BNL patent attorney, and a lab-wide committee with representatives from each department and division. The committee provides guidance and quality control, and each representative serves as a link between staff members

and the technology transfer effort. Marcuse also encourages anyone who thinks he or she has an invention with commercial viability to contact him directly at Ext. 2103, Bldg. 130.

Marcuse says every project, programmatic as well as support, will be reviewed. For each one that has the potential for commercialization, an abstract and fact sheet are prepared. The abstract is sent to the Technical Information Center at the Department of Energy and to the National Technical Information Service operated by the Commerce Department, and the fact sheet is widely circulated to such people as science writers, industrial users and technology brokers. A packet containing more detailed information is mailed out in response to subsequent inquiries.

Screening inquiries is also part of the ORTA function, as Marcuse sees it. "Although we want to reach out and transfer information where it may be useful, we also want to minimize the drain on the researcher's time."

For this fiscal year, Marcuse is working on a specific group of about 25 projects. Here is a brief sampling of some of them:

- PUMA computer, Applied Math.
- Mineral exploration using trace element enrichment of bromine, Chemistry
- Fast closing valve, National Synchrotron Light Source.
- Data highway, Accelerator.
- Spray machine for quick setting furfuryl alcohol concretes, Energy and Environment. (See accompanying story.)
- Red cell kit, Medical.

Marcuse is also identifying specific areas of expertise at the Lab, such as cryogenics and vacuum technology. This kind of information may be useful to state and local regional development groups.

State and local governments are also given technical assistance when (Continued on page 2)

## **Inside Info**

At the High Flux Beam Reactor, Michael Brooks has been appointed Plant Manager, a new position, and William Brynda has been named Group Leader of the newly-formed Engineering and Standards Group. Brooks will be responsible for the operation and maintenance of the HFBR and will continue as group leader of the Operations Group. In addition, he will oversee the Instrumentation and Maintenance Groups and the Water Chemistry Laboratory. He has been with the Lab since 1961. In his new group, Brynda will add engineering and design support to the standards work now under his supervision. He has been a member of the Reactor staff for 16 years.

## **Service Awards**

The following employees received service awards during the month of February:

Thirty-Five Years Bronislas M. Orlowski..... Tech. Info. Thirty Years James T. Gilmartin ......S&EP Vincent J. Kovarik ...... Accelerator Twenty-Five Years

Edward R. O'Beirne .... Staff Services George E. Oldham ...... Plant Engrg. Vincent P. Racaniello ... Light Source Richard C. Richardson ..... Instr. Adolf W. Rosenka ..... Central Shops John Schirmer ..... Accelerator Donald H. Stonebridge ...... Reactor

Twenty Years Robert S. Frankel..... Accelerator Everett S. Harris ..... Accelerator Keith W. Jones . . . . . Physics Gerard J. Mayman . . . . . Accelerator Robert L. Mosley......S&EP Dale A. Norden ..... Accelerator John W. Olness ..... Physics Joseph F. Risley ...... Plant Engrg.

Ten Years Edward J. Bleser ..... Accelerator William R. Casey ...... S&EP Alfred R. Mack ..... Accelerator Gladys L. Mack ..... Accelerator Sonja Santos . . . . . . Nuclear Energy

# **Reports Available**

The following reports are now available to the Laboratory staff and to affiliates of the DOE, AUI and NRC. Others may purchase the reports from the National Technical Information Service, U.S. Dept. of Commerce, 5285 Port Royal Rd., Springfield, VA 22161. Staff members should call Ext. 5068.

NUREG/CR-2193 **BNL-NUREG-51410** Vol. 1 #2

Properties of Radioactive Waste and Waste Containers. Quarterly Progress Report April — June 1981. N. Morcos, et al

Nonreactor Nuclear Facilities: Standards and Criteria Guide. W.J. Brynda, et al

NUREG/CR-2317 **BNL-NUREG-51449** 

Container Assessment — Corrosion Study of HLW Container Materials. Quarterly Progress Report July — Sept. 1981. T.M. Ahn, et al

BNL-51455

A Multi-Layer Universal Correction Magnet. G. Parzen

BNL-51467

Examining Public and Occupational Health Risks of Photovoltaic Energy Technologies. P.D. Moskowitz, et al

Ecological Impact of Cadmium on Aquatic Organisms. L. Conway

NUREG/CR-2416 BNL-NUREG-51480

Initial Quantification of Human Error Associated with Specific Instrumentation and Control System Components in Licensed Nuclear Power Plants. W.J. Luckas,

BNL-51503

Dynamic Performance of a Prototype Solar Assisted Heat Pump. M.A. Catan

#### **Tech Transfer** (Cont'd)

requested. Marcuse cites as an example a recent call from the New York City Office of Resource Recovery. He says they are building a waste disposal plant, and had questions about dioxins generated from the plant. Dioxins are known to be harmful in concentrations barely detectable.

"The plant is within the EPA guidelines, but the Office wanted to know more details about dioxin generation and about health effects," says Marcuse. "Using the technology transfer network that has grown up in such a small amount of time, our medical department led them to scientists knowledgeable about health effects and to outside sources who identified experts on dioxin generation.

Off in the future are two more activities which will encourage technology transfer. Within a year, Brookhaven will be hosting members of the Industrial Research Institute (IRI). The IRI claims over 350 member companies, most of which are listed in the Fortune 500, says Marcuse. Brookhaven is a member of the National Laboratory/IRI Task Force, which has as its goal improved communication between laboratory and industry researchers. "The session at Brookhaven will acquaint the IRI membership with our special facilities and unique capabilities, which, in addition to facilitating technology transfer, may spark joint projects," he says.

Coming up in September, Brookhaven will be the site for a Commerce Department Regional Innovations Workshop. Marcuse describes this as a call to all basement inventors. He says the workshop is aimed at inventors who are not quite sure what to do with their inventions. They will be helped to understand the process of patenting, licensing and financing

# **Industrial Users Of BNL Facilities**

**National Synchrotron Light Source Allied Chemical** Ashland Oil **Bell Laboratories** Exxon General Electric

Gulf Oil International Business Machines Johnson Research Foundation Mobil

United Technologies

Xerox

High Flux Beam Reactor Amoco Oil

**Bell Laboratories** DuPont Exxon

General Electric

**International Business Machines** Westinghouse Electric

**Scanning Transmission Electron Microscope** 

Exxon Merck

Roche Institute

Tandem Van de Graaff

Bell Laboratories

**Panametrics** 

that finally leads to commercializa-

Marcuse will also be working on some preliminary ideas, such as seeking assistance from retired Brookhaven employees and looking for sponsors to support research on the technology transfer process, which is not well understood.

"Of course, the best technology transfer happens when the person with the idea meets face-to-face with the person who is going to use it," says Marcuse. But that doesn't happen very often. It's Marcuse's job to play match--Mona S. Rowe maker.

#### Concrete (Cont'd)

For this project, Huszagh had to design equipment that could spray a fast-setting liquid uniformly over a large surface. The application also required that the machine be simple to operate, easily controlled, and easily cleaned. The speed and permanence with which polymer concrete sets made the last stipulation a major consideration. "Once it's mixed," said Huszagh, "God help you if you can't get the stuff cleaned out of the machine."

The design is also suitable for a oneman operation. Weighing in at oneton, it is portable in the sense that it can be hoisted by forklift to a flatbed truck where it is connected directly to the drums containing the pre-batched feedstocks from which polymer concrete is mixed.

When Huszagh, an engineer, began working on his design in December 1981, a primary goal was to make the machine compatible with those feedstocks. "I got a great deal of help on the chemical end from Jack Fontana,' said Huszagh. "Chemistry is very challenging. But it was fun to do it. I love that kind of work."

For mechanical assistance, Huszagh turned to Dave Elling, who put the machine together. Elling also went to Virginia to conduct the test last April, less than six months after the project was initiated. With the test a success, and the spray machine now FHWA property, the Lab's participation in this project is completed. However, in April, the equipment will again be tested for a larger project in - Anita Cohen Tennessee.



The 29th Brookhaven Semester is in session and nine students will be taking classes and assigned to research in Biology, Chemistry, DEE, or Medical until April 29. In residence at Brookhaven now are, from left, John Claybourne (Knoxville Coll.); Athlene Alexis (Alcorn State); Farhad Kiumarsi (Knoxville Coll.); Donita Morgan (Alcorn State); Sybil Solomon (Jackson State); Deborah Johnson (Hampton Inst.); Carla Mitchell (Alcorn State); and Jackie Hayes (Alcorn State). Nathaniel Esaw (Hampton Inst.) was absent when this picture was taken. BNL scientists who are conducting classes for the students are S. Lewis Commerford (Med.), Peter Daum (DEE), Peter Haustein (Chem.), Malcolm Hawkesford (Bio.), Myron Ledbetter (Bio.), Jay Leonard (Med.), Barbara Moffat (Bio.), James Muckerman (Chem.), Edwin Popenoe (Med.), and Ralph Weston

# Meter **Monitors** Megawatts

It's one of those wintry days when nothing ever seems to warm up - one of those days when thermostats struggle to rise above the elements. It's also one of those days when the AGS is running.

 $Given \ all \ of \ these$ factors, those in the AGS Control Room are not suprised to hear the alarm warning that the Lab's total



**Woody Glenn** 

power level has risen above a pre-set limit. In response to that signal, control room operators begin slowing down the AGS.

This scene has been repeated several times since last June, when a meter was installed in the AGS control room to monitor the Lab's total power usage. Installing the meter was the idea of Woody Glenn, Assistant Head of Operations at the AGS, and was accomplished with the assistance of Tom Esnes and Steve Biemer of Plant Engineering, as well as programmer George Cornish, technician Paul Hichborn and engineer Don Davis at the AGS.

Glenn's idea was based on the premise that the AGS is the Lab's largest single user of electrical power. The Lab pays a bill based on two factors: peak demand (megawatts, or MW) and total energy consumed (megawatt hours, or MWh). Glenn considered the fact that BNL's power costs increase at certain increments of peak demand for power. The first 27 MW of demand come from the Power Authority of the State of New York (PASNY) and are the most economical. Any demand above 27 MW comes from LILCO, whose rate, overall, is more expensive. To keep costs in line, the Lab sets a limit on demand. In one month, for example, that limit could be set at 45 MW. If total peak demand should rise above 45 MW for more than 15 minutes during that month, the Lab would have to pay a higher rate for the entire month. This is why demand cannot be allowed to fluctuate arbitrarily.

In winter and summer, boilers and air conditioners sometimes push the Lab's power usage way up. And with the AGS running, total usage can easily rise above the pre-set limit. Until the meter was installed, there was no way for the AGS to monitor that rise. But now, with the meter connected by computer to the control room console, operators can take immediate action to lower the power level of the AGS. The slowdown procedures the operators follow were established for Save-A-Watt, a program which has been in effect at the AGS since 1973.

How great are the savings from slowing down the AGS? Mark Culp, Plant Engineering, said, "A drop in demand of one megawatt a month, when the AGS is running, saves about \$200,000 a year." The magnitude of those savings prompted Plant Engineering to install a back-up meter at Bldg. 603, the Lab's main power sub-station.

## **Arrivals & Departures**

Arrivals

Mary Jean Sawey ..... Medical

**Departures** 

This list includes all employees who have terminated from the Laboratory, including retirees: William G. Byrnes ...... S&E Prot.

David Vartsky ..... Medical

# BROOKHAVEN BULLETIN

Published weekly for the employees of BROOKHAVEN NATIONAL LABORATORY

BERNICE PETERSEN, Editor MONA S. ROWE, Assistant Editor ANITA COHEN, Reporter

35 BROOKHAVEN AVE., UPTON, N.Y. 11973 Telephone (516)282-2345

# In Case Of A Cold

People often complain that they have too many colds. In some cases there is a simple explanation. Often, small children, whose immunity is generally lower than adults, will carry colds home from school or day care centers. Although this is a nuisance, it is a consequence of interpersonal contact and not too much can be done to minimize it.

Some colds are not really colds but are allergies with nasal symptoms. Usually an evaluation by an allergist will eliminate this possibility.

There is no proven method of boosting immunity to colds. Although many people take nutritional supplements of various kinds to prevent colds, there is no sound scientific basis for doing so. For treatment of cold symptoms, expensive, over-thecounter cold preparations exist which contain ingredients easily purchased separately. Be extremely careful to read all package directions. Although analgesics, decongestants and antihistamines can be combined, be especially careful if you are already taking any other medication or have any medical condition. In general, overthe-counter preparations of all kinds should be avoided if you are pregnant. In all of these cases, consult with your physician and your pharmacist first.

For pain relief, reduction of mild fever, or both, one may take aspirin (acetylsalicylic acid) or acetaminophen, but not both. Buffered aspirin is preferred to regular aspirin. Preparations containing caffeine, ascorbic acid (vitamin C) or phenacetin are unnecessary, cost more, and may have

undesirable side effects

If you have nasal stuffiness or congestion, ask the pharmacist to advise you about a mild antihistamine. If antihistamines tend to make you drowsy, you may eliminate this side effect by taking a decongestant instead. Throat lozenges can be used for temporary relief from a sore throat, as can gargling with a solution of table salt (one tablespoon in one glass of warm water).

The presence of continued fever (beyond 48 hours), sore throat, rash, persistent cough, chest pain, difficulty swallowing, or neck stiffness are indications to seek medical attention. Your physician may wish to prescribe an antibiotic if a bacterial infection is suspected.

Employees having questions about medication or treatment should come to the Clinic during regular working hours.

—Laura Sbarra, M.D. Head, Occupational Medicine Clinic

## **Nutrition Club**

A new BERA group, with a focus on nutrition, is now being formed. Anyone interested in joining the Nutrition Study Group should attend the organizational meeting in Room D, Berkner Hall at 12:15 p.m. on Tuesday, March 1. Plans for the club include discussions, guest speakers and discounts on vitamins. For more information, call Fred Usack, Ext. 4798.

# Blues And Jazz Tomorrow

When was the last time you treated yourself to an evening of blues and jazz? If it has been too long, you can rectify that situation tomorrow night, when the Afro-American Culture Club presents "An Evening of Blues and Jazz" at Berkner Hall. The program, sponsored by BERA, will begin at 8 p.m.

The evening will feature the music of Son Seals and his Blues Band. Doug "Harmonica" McLean will also perform with his Blues Band. The MJB Jazz Trio — Margaret Fonville, Jim Brown and Billy Sells, with vocalist Jean Sells — will round out the program.

A Macramé Exhibit will be on display in Room C Berkner Hall that evening from 7 to 11 p.m. The show, which is being presented by Ella McLean, Virginia Eleazer and Barbara Roberts, can also be viewed today, from noon to 1:30 p.m.

Tickets to "An Evening of Blues and Jazz" are \$9 each and can be purchased from any of the following:

Name	Bldg.	Ext.
April Donegain	197	2903
Mary Durham	464	3427
Sandra Green	535	4933
Michele Henderson .	555	4303
Frances Ligon	460	3316
Mac Thomas	318	2959

## **Diners Note**

Monday, February 28

Cream of celery soup

Hot Deli: Corned beef

Western omelet & hash browns

Tuna noodle casserole & 1 veg.

The cafeteria will be closed on Saturday, February 26. On that day snack bar service will be available from 9 a.m. to 2 p.m. at the Brookhaven Center.

## Cafeteria Menu Week Ending March 4, 1983

(cup) .65

1.80

1.85

(bowl) .75

(bread) 1.85

(roll) 1.95

(cup) .65

(bowl) .75

1.85

1.80

1.95

	(roll) 1.95
Tuesday, March 1	
Beef barley soup	(cup) .65
	(bowl) .75
Top round of beef & 1 veg.	2.00
Fish & shrimp Newburg on white	rice 2.00
Hot Deli: Pastrami	(bread) 1.85
	(roll) 1.95
Wednesday, March 2	
Cream of potato soup	(cup) .65
	(bowl) .75
Chicken breast Parmesan & 1 veg. 1.95	
or w/ziti	2.15
BBQ spare ribs & black eyed peas	1.95
Hot Deli: Baked ham	(bread) 1.85
	(roll) 1.95
Thursday, March 3	
Turkey vegetable soup	(cup) .65
	(bowl) .75
Western style chili on white rice	1.90
Shrimp cakes w/cream sauce & 1	veg. 1.85
Hot Deli: Roast top round of beef	(bread) 1.85

# **ANS Meeting**

Hot Deli: Italian style meatball hero

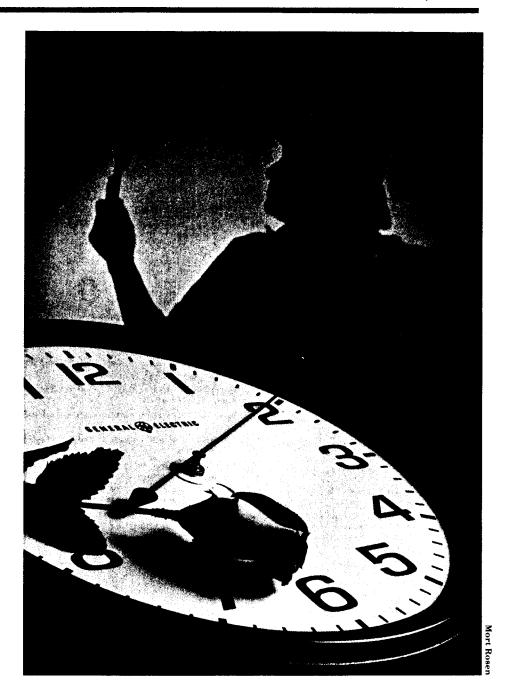
New England clam chowder

Breaded fish fillet & 1 veg.

Macaroni & cheese w/1 veg

Friday, March 4

The Long Island Section of the American Nuclear Society will forego its usual dinner meeting and, instead, take a tour of the Shoreham Nuclear Power Station. The tour is scheduled on Wednesday March 9 from 7-9 p.m. for members and a limited number of guests over 14 years of age. If interested, call Annamarie Spira on Ext. 2352 by March 7 and leave name, social security number and telephone



# **Contest! Contest!**

Who is the lovely lady in silhouette? What will she be doing at the BERA Spring Fling on Friday, March 11, in Berkner Hall? This photo can provide astute observers with answers to both these questions. If you think you know those answers, send them to the Bulletin, Bldg. 134, by Tuesday, March 1. A drawing of all correct entries will be held to pick five lucky winners, each of whom will win a pair of tickets to the Spring Fling.

Those who don't win can buy their tickets — at \$3 each — from any of the ticket sellers listed in last week's Bulletin. With the Daisy Disco featuring Mr. "T", the Blossom Ballroom presenting Charlie Zein and the New ports, the Pussywillow Players in the "Forsythia Follies," a cash bar and food concessions, and exciting door prizes the Spring Fling is a bargain at any price.

## Softball

A captain's meeting will be held on Wednesday, March 9, at noon in the Snyder Seminar Room of the AGS, Building 911, first floor. All established teams wishing to participate should have a representative at this meeting, as well as any new teams who want to join the BNL Softball League. For further information, call Charles Bohnenblusch, Ext. 4758.

# **Bowling**

Pink League

M. Apelskog bowled a 233 which is 111 pins over her average, R. Rosati 169, M. Grahn 161, M-G Meier 161/177, H. Keeley 166.

Red/Green League

C. Bohnenblusch rolled a 263, J. Connelly 229/204/626 scratch series, H. Arnesen 238/202/608 scratch, E. Sperry IV 220/213/608 scratch, N. Combatti 222/203, A. Almasy 222, K. Asselta 213, T. Holmquist 212, R. Larsen 211, T. Prach 205, E. Sperry 202, H. Marshall 201, W. Kristiansen 200.

White League

High games were bowled by F. Vander-voort 197, J. Griffin 222, B. Belligan 208, D. Adams 201/205, K. Asselta 199/214, J. Ferrante 201, G. Hassell 201. The Old Timers are in first followed by No Cigar.

For Plant Maintenance Dial 2468

## **PSI News**

The February meeting of the Upton Chapter, PSI, will be held on Monday, February 28, at 6 p.m. in Room B, Berkner Hall. Dinner may be purchased at the cafeteria and brought to the meeting room.

Speaker for the evening will be Olga Baylis who will talk about the forming of a local chapter of the Future Secretaries Association (FSA). Mrs. Baylis is FSA chairman of the Queen Anne Chapter of PSI. Guests are welcome.

# **Hospitality News**

The Hospitality Committee's next monthly morning get-together will be held Tuesday, March 1 from 9:30 to 11:30 a.m. at the Brookhaven Center. Ms. Sandy Dinse will be the guest speaker. The topic of her presentation will be "Skin Care."

Wives of Laboratory employees and guests are welcome. Please come and bring the children. Babysitting will be provided free of charge. Coffee, tea and danish will be served.

Adult: one who has stopped growing except in the middle.

Canapés: a sandwich cut into 24 pieces.

Eloquence: logic on fire.

Nepotism: putting on heirs.

## Classified **Advertisements**

### **Placement Notices**

The Laboratory's placement policy is to select the best-qualified candidate for an available position, with consideration given to candidates in the following order of priority: (1) present employees within the department, with preference to those within the immediate work group; (2) present employees within the Laboratory as a whole; and (3) outside applicants. In keeping with the Affirmative Action plan selection decisions are made

(3) outside applicants. In keeping with the Affirmative Action plan, selection decisions are made without regard to age, race, color, religion, national origin, sex, handicap or veteran status.

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all non-scientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel and, finally, for general recruiting purrequest consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment.

Except when operational needs require otherwise, positions will remain open for one week following publication date.

lowing publication date.

For further information regarding a placement listing, contact the Personnel Placement Supervisor, Ext. 2882.

The vacancies listed below have been exempted by the Director's Office from the current freeze on open requisitions.

LABORATORY RECRUITMENT: Opportunity for present Laboratory employees:

1831. MACHINE MAINTENANCE MECHANIC A - Central Shops Division.

### **Autos & Auto Supplies**

VW PARTS - Bug muffler, compl., \$28; Rabbit muffler, \$36; VW tow bar, \$37.50; Bug bumpers, \$27; Bosch plugs, \$.95/ea.; 044 points for most Bugs, \$1.50; all parts are brand new. Augie, Ext. 2419 or 325-0594 eves.

80 SUZUKI - GS1000L, lugg. rack, c/c, custom seat, many extras, mint, must sell, \$2,500. Ext. 7187 or 981-9474.

79 DATSUN - 280ZX, GL PAL., 5 spd., a/c, p/s, p/b, sunroof, louvre, mint, 50 kmi, \$7,900. Fred, Ext. 3354 or 744-2655.

TIRES - (2) G78-14, \$20; (2) Ford/Merc. rims, 14", \$15. Tony, Ext. 3658 or 3637.

79 FIAT - Strada Luxury Package, 5 spd., 39 mpg, bucket seats, hatch back, like new, 28,000 mi., mint, \$2,875; 73 Pontiac LeMans sport coupe, am/fm, stereo, p/s, p/b, a/c, auto., 50,000 mi., good, \$685; 79 Pontiac Sunbird, sport, p/s, 4 spd., radio, rear defogger, excel. cond., \$3,100. Richard, 821-9280.

78 MERCURY BOBCAT - 60,000 mi., some body damage, needs valve adjustment, asking, \$1,100.

69 VW CAMPER - engine, trans., tires, battery good, many camping accessories incl. \$750. Bill, 757-4329.

77 CHEVY - Suburban, K-10, 4x4, no rust, delux, many extras, \$5,200. Paul, 727-4859.

73 GREMLIN - 6 cyl., bought and used only in Fla. 924-3755.

CAP - for 6 ft. bed truck w/many extras, \$450.

472-1875 after 5:30 p.m. 79 HONDA MOTORCYCLE - CM400T, 2,000 mi.,

garaged, must sell, \$1,000. Ext. 7125.

74 FORD MUSTANG - hatchback, 4 cyl., 4 spd., good cond., \$950. Frank, 281-6042

66 BSA MOTORCYCLE - 441cc, very fast, no frills, classic British single, \$441. Frank, Ext. 2022.

70 PONTIAC LEMANS - '71 motor completely

rebuilt, 35,000 mi., many extras, needs paint, \$1,200. Ext. 3174 or 473-7071.

CHEVY RIMS - (1) set, 8 lug w/16" ply tires, like new, \$125. 727-1886.

82 FORD FUTURA - 4 dr., a/c, two-tone paint, p/s, p/b, 4 spd., radio, low miles. 281-8274.

RADIAL TIRES - (2) used GR78-15, good for

spares, \$15 for 2 or \$8/ea. Nick, Ext. 2524. 81 CAMARO Z28 - metallic blue, a/t, a/c, p/s, p/b.

stereo cassette, alloy wheels, mint. 273-8998 74 PINTO - 4 spd., a/c, excel. cond., asking \$995.

Don. Ext. 5329 or 878-2215 after 6 p.m. 67 DODGE DART - excel. engine & trans.,

well, needs work, will discuss price. 473-9209.

82 MAZDA SPORT PICKUP - a/c, cap, radials, am/fm, 5 spd., 29 mpg, \$7,695. Janet, 929-4439.

74 DUSTER - a/t. p/s. p/b. excel. cond., \$1,100. Saha, Ext. 4339 or 924-6139 eves.

73 CADILLAC - Coupe DeVille, a/t, full power, good cond., \$800. Steve, 654-8438 after 6 p.m.

78 HONDA PARTS - from Civic CVCC, struts,

corner panels, etc. Laurence, 744-5079. 77 GREMLIN - 76,000 miles, excel. cond., many

new parts, must see. Ext. 3449 or 5507. 77 CHRYSLER CORDOBA - p/s, p/b, a/c, s/s

wheels, Landau roof, 6-way power seats, mint, \$3,900,727-0948.

80 DODGE D50 - 2600cc, 4 cyl., a/t, 25 mpg, roll bar, stacks, mint, asking \$5,500. Matt, Ext. 4173 or 331-9424.

65 LEMANS CONVERTIBLE - 326 eng., a/t, bucket seats, primed, ready for paint, excel. cond., asking \$1,400, 588-7648.

80 SUZUKI - GS1000L, luggage rack, c/c, custom seat, many extras, mint, must sell, \$2,500. Ext. 7187 or 981-9474.

76 VW RABBIT - 4 spd., 30+ mpg, well maintained, orth a look, very good cond., \$1,850. Chip, Ext. 2256 or 928-5836.

70 PONTIAC GRAN PRIX - dependable transportation, many new parts, best offer over \$300. 924-3281.

72 DODGE POLARA - excel. running, well maintained, best offer over \$500. 924-3281.

TIRES & RIMS - (4) 1200x15 Float Tracs; (4) 15x8 brushed aluminum rims; (4) 15x10 white spokes, all 5 lug. 281-7230.

SNOW PLOW - Meyers, 6' blade, electrolift compl., like new. Vinny, 281-7230.

63 VW - runs well, \$475. 744-6668 after 6 p.m.

74 MONTE CARLO - am/fm cassette stereo, new paint, good cond., \$1,900. Sharon, Ext. 7008 or 722-8019.

81 MERCURY CAPRI GS - black/red inter., 4 cyl., a/t, am/fm, 8-track, sunroof, radials, excel. mpg, 32,000 mi., \$5,550 neg. Ken, Ext. 2350 or 732-7944. 68 BUICK SPECIAL WAGON - 350, V8, a/t, it runs, \$250. Lloyd, Ext. 3381.

### **Boats & Marine Supplies**

17' THUNDERBIRD - cathedral hull, 90 HP Mercury, Trailex aluminum trailer, asking \$2,000. Borg, Ext. 3568 or 286-0428.

JOHNSON OUTBOARD - 9.9 HP, like new. Shel-

41" R/C HYDROPLANE HULL - "Challenger" never used, fiberglass, complete outdrive, by G.E.M., needs Quadra, etc. engine, \$125. Tony,

#### Miscellaneous

WALL OVEN - Caloric Ultramatic (propane), w/infra-red broiler, stainless steel finish, very good cond., \$75 or best offer. Ext. 2492.

WOOD STOVE - Vermont Defiant, can produce 55,000 BTU's, heat up to 10,000 cu. ft., used one season, asking, \$500. 929-6836.

SKI BOOTS - Nordica, ladies, sz. 6-1/2, very good cond., \$25. Ext. 4312.

DINING ROOM SET - 9 piece, round, pine finish, excel. cond., sacrifice, \$175. John, Ext. 5171.

LIVING ROOM SET - couch, 2 chairs, end table, ottoman, excel. cond., make an offer. 473-7667.

BOY'S JACKET - winter, sz. 10, navy, nylon, w/hood, lined w/fleece, \$10. Susan, Ext. 4267

ELECTRIC RANGE - GE, 220V, white, self cleaning, good cond., \$50. 286-8119.

GREEN SECTIONAL COUCH - 9' provincial; 5' vinyl studio couch; full size mattress, reasonable, must see. 732-0263. COLLECTOR DISHES - from the 60's, Christmas

plates B&G, Royal Copenhagen, \$50 each. Ext. 2888 or 286-0422 after 6 p.m. LAMP - 34" high, very good cond., \$20. Ann,

286-2280

SLEEP SOFA - good structurally, must be recovered, \$50. Gail, Ext. 3338. FREEZER CHEST - Coldspot, 16 cu. ft., about 3

yrs. old, hardly used, \$250. 286-2889 eves.

CABLE TV DESCRAMBLER - new, \$169, 654-1731 DESK - 7 drawer, matching chair, all wood, \$55; child's 5 drawer wardrober, changing table top, \$30. 286-0259.

FERRARI SUNGLASSES - \$6/ea.; LCD watch pens, \$4.50/ea.; electric, farm type, gas pump w/gallon counter for kero. Paul, Ext. 4665 or 727-4859.

WALL OVEN - Frigidaire, 21", white, electric, 3 months old, \$125. 929-6772 after 6 p.m.

AIR CONDITIONER - Welbilt, casement, 5400 BTUH, \$50; Briggs/Stratton engine, 3.5 HP, horiz. shaft, \$25. Bill, 757-4329.

QUEEN SIZE MATTRESS - Sterns & Foster, spotless, \$35. Corliss, 472-1585.

KEROSENE HEATERS - Radiant King, 9000-20,000 BTU, discount prices, factory sealed cartons, guaranteed. Jim, 924-7665 eves, wkends.

DENIM JACKET - w/picture of Jim Morrison painted on back. Rose, 744-5069

CHAIRS - Windsor style, 2 arm, 2 side, walnut-

stained, set of 4, \$120. Theresa, Ext. 2907. VELVET RECLINER - Mediterranean couch; 8 lamps; drapes; colonial couch, love seat, chair, & ottoman; crib; cabinet stereo; air conditioner. 473-8542.

LIVING ROOM SET - Provincial style, sofa, 2 chairs, ottoman, \$250; dinette set w/4 chairs, \$74; executive office chair, \$65. Ext. 2752.

PLATFORM BED - queen, \$100; Tensor desk lamp, \$30; assorted house plants; hockey skates, \$10; electric chain saw, \$40; Gillette blow dryer, \$15; curler, \$5; Ross ladies bike, \$150; hand mixer, \$15; Fifth burner, \$15; desk top phone, \$20. Ext. 3890 or 924-4250.

TYPEWRITER - IBM Model C, office type, good cond., reduced \$150. G. Raynor, Ext. 2268 or 727-5194.

HAMS - Heath C.W. transceiver HW16 w/V.F.O., ant, tuner, SWR meters, coax, switch, complete \$200. 589-2648.

SCULPTURED RUG - 12x15, Karastan, green, excel. cond., \$170 incl. pad; Brunswick bowling ball, 12 lbs., very good cond., \$15 incl. deluxe bag; Chippendale style wing chair, excel. cond., \$100; wine fount, wrought iron, from Austria, never used, \$25. Kathy, Ext. 3652 or 744-3866 after 6 p.m.

SYNETHESIZER - Multivox MX2000, excel. cond., \$500, 363-2614 after 6 p.m. SOFA - dining table & chairs; rug, 9'x12'; bed,

lamp; baby items; steel shelves. 924-6139 after 5 CAMERA OUTFIT - Pentax 35mm, 50mm, 1.4

Takumar lens & 2 Vivitar lenses, 28mm and 75-260mm, complete with cases, hoods & filters, \$350. Al, Ext. 2072. FISH TANKS - (2) w/iron stands; CA.30 gal. stands

30/36/13/HWL and 30/31/13, some access. 581-6432 after 6 p.m. BOILER - Blue Ray II, new burner, high eff., excel.

cond., \$550. Bud, Ext. 2361. FIREWOOD - full cords, 4'x4'x8', \$115 delivered.

COAL BIN - 3 ton, used 2 seasons, orig. \$150, asking \$90. Carol, 289-3917 after 6 p.m.

SEWING MACHINE - Kenmore, new, \$150; car hood rack, \$20; bathroom window curtains, never used, 924-0582.

WOOD STOVE - Vermont, cast iron Defiant, can produce 55,000 BTU's heat up to 10,000 cu. ft., used 1 season, new \$995, asking \$500. 929-6836.

SANDER - Skil, 3" belt, new, \$55; Craftsman sabre saw, like new, \$50; sofa bed, \$25; portable typewriter, \$25; high chair, \$9. 878-6637.

SPACE HEATER - Sears, natural gas, 75,000 BTU, 2 blowers, excel. cond., \$175. Hugh, Ext. 4669 or 924-3522 after 6 p.m.

ANSWERING MACHINE - remote operation, dual cassette, message counter, Radio Shack deluxe unit, hardly used, new cost \$200, asking \$130. Linda, Ext. 2733 or 878-8491 after 5:30 p.m.

FEMALE PUPPIES - 2 left, 8 wks. old, mother Saymoed, father?, gentle disposition like mother, N.L.T.C. 727-2861 after 5 p.m.

### Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, creed or national origin of the applicant.

#### For Sale

SHOREHAM - 4 bdrm., 2-1/2 bath, l/r, d/r, eik, full bsmt., 2 car garage, 2 story contemporary, fireplace, coal stove, thermal pane windows, 1/2 acre, deeded beach rights, \$125,000. 821-0439.

BAYPORT - small authentic colonial, move-in cond., includes all major appliances, drapes, fixtures & some carpeting, 2-car garage, convenient to schools & shopping, low \$100's. 472-2633.

WADING RIVER - beach-front, year-round house, 2 bdrms., fireplace, 2 decks. 929-3127 after 4 p.m. MASTIC - large 3 bdrm. ranch, fam. rm., laundry rm., fireplace, 2 zone O/H/W, full bsmt., many extras, low taxes, 10 min. from Lab, \$44,500. 399-

#### For Rent

0376 or 581-1864.

MILLER PLACE - north of 25A, near beach, avail. Feb. 15-Aug. 15, unfurn. or partly furn., prefer couple or small family, no animals, \$450/mo. Ext. 7532 or 282-3070.

MANORVILLE - Pine Hills, 1 bdrm. chalet, extras incl. f/p, dishwasher & prime location, 10 min. to Lab, \$390/mo. incl. heat, golf, tennis, pool. 654-3041.

N. SHIRLEY - mother/daughter house, 3 bdrm./2 bdrm., priv. entrances, garage, avail. March 1, 2 mo. security, reasonable rent. Bob, 281-5605, 6-8

MASTIC BEACH - 3 bdrm. house, 1/2 mi. to water, encl. porch, large fenced property, 2 mo. security, \$450/mo. + util. Bob, 281-5605, 6-8 p.m.

BERKSHIRES CHALET - 3 hrs. from NYC, 3 bdrm., 2 baths, fully equipped kitchen, electric heat, deck w/spectacular view, near lake, hiking trails, near ski areas, cross country skiing on property, avail. weekly or weekends. 929-6946 after 6 p.m.

STONY BROOK - 6 rm., 3 bdrm., 4-5 mo. rent, north of 25A, 928-8522.

PATCHOGUE - 4-1/2 rm., 1 bdrm. apt., includes heat, hot water, laundry, garbage pickup, cable TV, dock space avail., 1st floor, full end apt., \$460/mo., avail. immediately. 286-8368.

MIDDLE ISLAND - sublet March thru April, 1 bdrm. apt. at Artist Lake, \$345/mo. + util. Ext. 2563 or 289-0453 after 5 p.m.

## **Car Pools**

RONKONKOMA - driver to join 3 person pool LIE exits 59, 60, and 61. Victor, Ext. 2395.

PATCHOGUE - opening for one person, 8:30/5:00 pool. John, Ext. 4214 or Jeanette, Ext. 4548.

OYSTER BAY - join or form small car pool, occasional or daily. Ext. 3312.

PORT JEFF - student look for car pool, willing to pay. Wayne, Ext. 3582.

### Lost & Found

LOST - bunch of keys on 2/14/83. Ext. 4239. LOST - Honda key, bldg. 460 or vicinity. Carol, Ext. 3325

### Wanted

accepted.

EXPERIENCED BARTENDERS - to work at BERA dance, March 11. Janet, Ext. 2345.

HOUSE TO RENT - 3 bdrm., reasonable distance from Lab, female scientist/MD and mother, references available. Karen, Ext. 3626.

TRAINS - Lionel, American Flyer, accessories, any conditon brings good price. Carole, Ext. 3362 or 924-4097 eves.

HOUSE TO RENT - for childless couple, 2-3 bedroom (or office space), Stony Brook to Riverhead. Kathy, Ext. 3420 or 924-7665.

ULTRASONIC CLEANER - any condition. George, Ext. 3536.

TOOL BOX - machinist H. Gerstner, used, oak preferred, reasonable; toboggin, used in good shape, any length. Ext. 3084.

TIRE(S) - E78x14 or equiv., 1 or 2, not snows.

Morris, Ext. 4192. HOUSE TO RENT - Bellport Village or Brook-

haven Hamlet, Ext. 5055 or 286-0919. HOUSE TO RENT - 2+1 bdrm. or apt. on north shore, walk to beach, 3 summer months. Joseph,

DRUM SET - used in good cond. for a 7 yr. old. Bob, 732-9517.

76 FIAT 131S - 2 dr., 5 spd., a/c, 26 mpg, asking \$1,300. Ext. 2521 or 928-8379 eves. APARTMENT - furnished, 1 bdrm., for nonsmok-

ing visiting scientist. Ext. 3449 or 5507. HOUSE TO RENT - 1 or 2 bdrm., with garage, no

more than \$400/mo., April 1 or May 1. 924-5816. CAMPBELL SOUP LABELS - send to F. Chandler,

Bldg. T-89, for St. Mary School, E. Islip. WETSUIT - good cond., reasonably priced. Joe.

Ext. 7961 or 878-2655 eves. EQUIPMENT - camping & fishing, used. 924-3281.

TYPEWRITER - used, standard electric, for middle aged college returnee, inexpensive only. 924-3281. ROOF RACKS - must be sturdy, reasonably priced.

STARTER GOLF SET - ladies right handed. Maureen, Ext. 3571.

HOUSE/APT. TO RENT - in Miller Place, Rocky Point area, 2 adults, 2 small children, approx. May 1. Ext. 5321 or 924-5495.

#### Services

Services are listed as a courtesy to BNL employees. They are neither screened nor recommended by

ELECTROLYSIS - permanent removal of un-

PLUMBING AND HEATING - Lab discount. John, 654-8189.

mine, reasonable. John, 732-2472. INCOME TAXES - prepared by expert tax accoun-

tant, low fees. Bob, 286-5829. HOUSE EVALUATIONS - free comp., market analysis, Stony Brook, Setauket, Port Jeff. area. 473-0508 eves.

PIANO TEACHER - experienced, proven methods,

yrs. teaching experience, wrote text. 286-8119. WOOD KITCHEN CABINETS? - refinish them! Will strip, stain and seal professionally, reasona-

ters, burglar alarms, \$.38/dollar market. 727-4459 after 6:00 p.m.

LIMO SERVICE - luxury chauffered for proms,

PAINTING - outside & interior, very reasonable,

references. Ext. 4070 or 475-7272. PROF. INCOME TAX SERVICE - by experienced preparer, IRS enrolled, by appt. Jack, Ext. 7942 or

accessories or other services. Roy, 744-8779. LANDSCAPING - spring cleanups, lawns raked,

trees pruned, garages cleaned. Ralph, 286-3984 or Chris, 286-1348. EASTER CHOCOLATES - beat the rush, order

WATERPROOFING - all work guaranteed in writ-

discount. 281-5445. EXTERMINATING - licensed men, guaranteed in writing, 15 yrs. experience, free estimates, Lab

VW PARTS - full line of orig. equip. replacement parts & accessories at wholesale prices, complete machine shop service for VW. Augie, Ext. 2419 or 325-0594 eves.

## **Classified Ad Policy**

## Deadline is 4:30 p.m. Friday for publication Friday of the following week.

- 1. The Brookhaven Bulletin's classified section may be used only by active and retired Laboratory employees 2. All items for sale or rent must be the advertiser's
- property.

  3. Ads for material acquired for resale in association with a full or part-time business cannot be accepted. 4. Ads for the sale or trade of firearms will not be
- 5. Ads not carried because of space restrictions will be held for publication in the next issue 6. Ads are run only once and must be resubmitted if they are to be repeated. One ad per person per week

7. Property for sale or rent cannot be accepted on this

form. Special Real Estate Ad Forms are available at the office of the Brookhaven Bulletin, Building 134.

☐ Wanted ☐ Free Lost & Found
Services For Sale: Miscellaneous
Car Pools For Sale: Autos & Auto Supplies
For Sale: Boats & Marine Supplies Please print your ad below in 15 words or less using one word per block. Include name and phone number to call.

Note: The following must be completed for your ad to appear.

.....Life No.... Employee's Signature.... Send to: Brookhaven Bulletin, Building 134 (Ext. 2345).

NAME (Please Print) .....

Ext. 4789 or 878-1426 eves.

Joe, Ext. 7981 or 878-2655 eves.

the Bulletin.

wanted hair, physician trained, latest method, licensed, free consultation. 331-4768.

TAXES - prepared by tax consultant, your home or

specialize in beginners, free trial lesson. 286-8119. CHEMISTRY TUTOR - prepare for Regents, 20

ble. David, 589-6090. CORDLESS TELEPHONES - stereo's tapes, boos-

CHILD CARE - experienced mother will watch your child in my home, p/t or f/t, Medford.

weddings, all occasions. Roy, Ext. 4664 or

864-2236. HAVING A BRIDAL SHOWER? - need some

now. Carol, 289-3917 after 6 p.m.

GENERAL CONTRACTOR - carpenter, entensions dormers, garage conversions, basements, decks, kitchens, licensed. Jim, 698-2501.

TRUCK FOR HIRE - no job too small, Lab discount. 281-5445. ing, over 15 yrs. experience, free estimates, Lab

discount. 281-5445.